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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,606	11/27/2006	Massimo Pizzorno	10175.0003	2115
22852 7590 04/29/2008 FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413				
			EXAMINER ANDERSON, GUY G	
			ART UNIT 2883	PAPER NUMBER
			MAIL DATE 04/29/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/576,606

**Applicant(s)**

PIZZORNO ET AL.

**Examiner**

Guy G. Anderson

**Art Unit**

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 January 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-48 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 23-48 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 21 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-8508)  
4) ☐ Interview Summary (PTO-413)  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

Applicants argue that the combination of Beals and Saini do not disclose the limitation of gas leakage detectors being enclosed within an outer jacket of a telecom cable.

Examiner disagrees. Beals discloses a method for installing optical fiber cables in pressurized gas pipelines. [Abstract, Col. 1, lines 55-60.] It is well known that optical fiber cables include outer jackets and that the fragile fibers are enclosed within the outer jacket for protection. Further, installing any kind of optical fiber, whether gas leakage sensor or actual telecom fiber, in a pressurized pipeline would cause breakage of the fiber unless it was enclosed within a protective outer jacket.

Therefore, the act of installing the gas leakage sensor fiber of Saini within the telecom fiber cable of Beals installed in a gas pipeline would have been obvious to one of ordinary art at the time of invention.

### *Response to Amendment*

#### *Claim Rejections - 35 USC § 103*

- 1.1 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:  

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
- 1.2 Claim 1 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claim 1, Beals discloses a method for installing optical fiber cables in pressurized gas pipelines. [Abstract, Col. 1, lines 55-60.] It is well known that the

following limitations from applicants claim would be included in the optical fiber cables discussed in Beals.

1a) an optical core comprising a number of telecommunication optical fibers; an outer jacket covering the optical core.

Beals does not specifically disclose:

1b) one or more gas leakage detector optical fibers, said one or more gas leakage detector optical fibers being enclosed within the outer jacket.

Saini discloses a sensor distribution network that uses optical fibers to monitor leak detections over long pipelines such as gas and oil pipelines. [Abstract, paragraph 48.]

Since Beals and Saini are both from the same field of endeavor, the leak detecting fiber of Saini would have been recognized as being in the pertinent art of Beals. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the leak detecting fibers of Saini with the installed optical fiber cables of Beals in order to monitor for leaks in the pipeline as well as transmit voice and data over long distances.

Regarding claim 48, Beals discloses a method for installing optical fiber cables in pressurized gas pipelines. [Abstract, Col. 1, lines 55-60.] It is well known that the following limitations from applicants claim would be included in the optical fiber cables discussed in Beals.

48a) an optical core comprising a number of telecommunication optical fibers; an outer jacket covering the optical core.

Beals does not specifically disclose:

48b) one or more gas leakage detector optical fibers, said one or more gas leakage detector optical fibers being enclosed within the outer jacket and separated from the optical core.

Saini discloses a sensor distribution network that uses optical fibers to monitor leak detections over long pipelines such as gas and oil pipelines. [Abstract, paragraph 48.]

Since Beals and Saini are both from the same field of endeavor, the leak detecting fiber of Saini would have been recognized as being in the pertinent art of Beals. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the leak detecting fibers of Saini with the installed optical fiber cables of Beals in order to monitor for leaks in the pipeline as well as transmit voice and data over long distances.

- 1.3 Claim 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claims 24-25, strength rods and neutral axis with preferential bending planes are well known in the art and it would have been obvious for one of ordinary skill in the art to use strength rods and to set a preferential bending axis.
- 1.4 Claim 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claims 26-27, fiber winding techniques such as helical and SZ are well known in the art and would have been obvious to a PHOSITA.
- 1.5 Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claim 28, selecting a known material on the basis of its suitability for a particular purpose is within the general skill of a worker in the art.
- 1.6 Claim 29, 31, 33, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claims 29, 31, 33, 36, supplying a primer for providing adherence with the jacket is well known in the art of making optical fibers and would have been obvious to a PHOSITA.
- 1.7 Claims 30, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claims 30, 32, providing a plurality of tubes that contain jelly is well known in the art of making optical fiber cables and would have been obvious to a PHOSITA.

- 1.8 Claims 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claims 34-35, providing a metal barrier comprised of various materials is well known in the art of making optical fiber cables and would have been obvious to a PHOSITA.
- 1.9 Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claim 37, selecting a known material on the basis of its suitability for a particular purpose is within the general skill of a worker in the art.
- 1.10 Claims 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claims 38-39, providing a plurality of tubular elements around a central strength member and a cylindrical member with grooves is well known in the art of making optical fiber cables and would have been obvious to a PHOSITA.
- 1.11 Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claim 40, selecting a known material on the basis of its suitability for a particular purpose is within the general skill of a worker in the art.
- 1.12 Claims 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claims 41-43, providing a metal central tube, and a non metal central tube inserted within the metal central tube, and wherein the non metal tube is plastic, is well known in the art of making optical fiber cables and would have been obvious to a PHOSITA.
- 1.13 Claims 44-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over US-6536463 to Beals in view of US-2002/0125413 to Saini.  
Regarding claims 44-47, discovering the optimum or working range involves only routine skill in the art and it would have been obvious to a PHOSITA at the time of invention to have outer jackets and strength rods of the dimensions claimed.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guy G. Anderson whose telephone number is 571.272.8045. The examiner can normally be reached on Tuesday-Saturday 0900-2200.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571.272.2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Guy G Anderson/  
Examiner, Art Unit 2883

/Frank G Font/  
Supervisory Patent Examiner, Art Unit 2883

April 9, 2008  
FGF/gga